

STEPANOV, Dmitriy Vasil'yevich; SUSHKEVICH, V.I., redaktor; VORONIN, K.P.,
tekhnicheskiy redaktor.

[Impulse amplifiers] Impul'snye usiliteli. Moskva, Gos. energ. izd-
vo, 1954. 255 p. (MLBA 8:1)
(Amplifiers, Electron-tube)

NOVOSARTOV, M.T.; SUSHKEVICH, Ye.V.

Design of a ferrite phase shifter.
no.9:1552-1557 S '63.
(Microwaves)

Radiotekh. i elektron. 8
(MIRA 16:9)
(Phase converters)

SUSHKIN, A. I.

23369 Uovershenstvovaniye Organizatii Truda Trachikhi. Tekstil. Proms-st',
1949, No. 6, c. 19-20

SO: LETOPIS NO. 31, 1949

SUSHKIN, G.L.

First All-Union Conference on Statistical Radio Physics.
Izv. vys. ucheb. zav. radiotekh. 2 no.1:121-127 Ja-F '59.
(MIRA 12:5)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom
gosudarstvennom universitete im. N.I. Lobachevskogo.
(Radio--Congresses)

MASLOVSKIY, P.M.; OSIPOVA, V.A., redaktor; SUSHKIN, I.N., redaktor;
EVENSON, I.M., tekhnicheskiiy redaktor.

[Study of heat processes in Martin furnaces on the basis of the
theory of similitude] Izuchenie teplovoi raboty martenovskikh
pechei na osnove teorii podobia. Moskva, Gos. nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 118 p.

(MLRA 7:12)

(Heat) (Open-hearth process) (Dimensional analysis)

STARK, Sergey Borisovich; LEL'YAVIN, N.Ya., redaktor; SUSHKIN, I.N.,
redaktor; BEKKER, O.G., tekhnicheskii redaktor

[Fundamentals of hydraulics, and pumping and blowing machinery;
collection of problems] Osnovy gidravliki, nasosy i vozdukhoduvnye
mashiny; sbornik zadach. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry
po chernoi i tsvetnoi metallurgii, 1954. 368 p. (MLRA 8:3)
(Fluid mechanics)

NITSKEVICH, Yevgeniy Arkad'yevich; MELENT'YEV, L.A., prof.; retsenzent; ,
ROSSIYEVSKIY, G.I., kand.tekhn.nauk; retsenzent; KABELYANSKIY,
G.V., inzh., retsenzent; SUSHKIN, I.N., inzh., red.; MURZAKOV,
V.V., kand.tekhn.nauk, red.; NEPOMNYASHCHIY, N.V., red.izd-va;
ATTOPOVICH, M.K., tekhn.red.

[Full use of fuel in ferrous metallurgy] Ispol'zovanie topliva
v chernoi metallurgii. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry
po chernoi i tsvetnoi metallurgii, 1954. 622 p.

(MIRA 14:1)

(Metallurgical plants--Equipment and supplies)

(Fuel)

KARAVAYEV, Nikolay Mikhaylovich, professor; PIJ'SKIY, Iosif Yakovlevich;
SHEPRELEV, Ivan Georgiyevich; LAZAREV, N.N., redaktor; SUSHKIN, I.N.,
redaktor; ATTOPOVICH, M.K., tekhnicheskiy redaktor.

[Machines and apparatus used in the production of coke] Mashiny i
apparaty koksokhimicheskogo proizvodstva. Pod obshcheired. N.M.Ka-
ravayeva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvet-
noi metallurgii. Vol. 1. 1955. 299 p. (MIRA 9:6)

1.Chlen-korrespondent AN SSSR (for Karavayev).
(Coke industry--Equipment and supplies)

SUSHKIN, I.N.
GARYAYEV, Andrey L'vovich; SUSHKIN, I.N., redaktor; EVENSON, I.M.,
tekhnicheskii redaktor.

[Preparation and repair of metal structures in metallurgical
plants] Izgotovlenie i remont metallokonstruktsii na metallurgi-
cheskikh zavodakh. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
chernoi i tsvetnoi metallurgii, 1957. 379 p. (MLRA 10:6)
(Metalwork)

24(8)

PHASE I BOOK EXPLOITATION

SOV/2987

Sushkin, Igor' Nikolayevich

Osnovy teplotekhniki; uchebnik dlya shkol i kursov masterov
(Principles of Heat Engineering; Textbook for Schools and
Courses for Foremen) Moscow, Metallurgizdat, 1958. 356 p.
16,500 copies printed.

Ed. of Publishing House: M. R. Lanovskaya; Tech. Ed.: Ye. B.
Vaynshteyn.

PURPOSE: This textbook is to be used in schools and training courses
for foremen. It may also be used by workers studying to improve
their skill.

COVERAGE: This book deals with the fundamentals of heat engineering,
engineering thermodynamics, and the theory of heat transfer. The
concept of specific heat, properties of steam, gas laws, cycles
of heat engines, and basic heat-exchange processes are included.

~~Card 1/1~~

SEMENENKO, Nikolay Aleksandrovich, prof., doktor tekhn.nauk; SUSHKIN, I.N.,
red.; DOBUZHINSKAYA, L.V., tekhn.red.

[New trends in the use of secondary power resources in heavy
industry; combined production and power engineering connected
with industrial flame processes] Novye puti ispol'zovaniya vto-
richnykh energoresursov tiazhaloi promyshlennosti; energotekhn-
ologicheskoe kombinirovanie v promyshlennoi ognetekhnike. Moskva,
Gos.nauchno-tekhn.izd-vo lit-ry po cherno i tsvetnoi metallurgii,
1960. 39 p. (MIRA 13:3)

1. Moskovskiy Energeticheskiy institut (for Semenenko).
(Power engineering) (Waste heat)

KALASHNIKOV, N.V.; STOTSKIY, L.R.; GLINER, B.M. [deceased]; DOBRYNINA, N.P.; DUBROVSKAYA, Kh.A.; YEZDAKOVA, M.L.; LYUBIMOV, N.G.; PONOMAREVA, K.A.; REYKHTSAUM, P.B.; SMIRNOV, V.I.; SUSHKIN, I.N.; SHAKHMAYEVA, Ye.A., vedushchiy red.; POLOSINA, A.S., tekhn. red.

[Units of measurement and abbreviations of physical and technical values; manual for editors and writers] Edinitsy izmereniia i oboznacheniiia fiziko-tekhnicheskikh velichin; spravochnik dlia rabotnikov izdatel'stv i avtorov. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 254 p. (MIRA 14:9)

1. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo neftyanoy i gorno-toplivnoy promyshlennosti (for Kalashnikov, Dobrynina, Smirnov). 2. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina, (for Stotskiy). 3. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo Ministerstva promyshlennosti proizvod'stvennykh tovarov (for Dubrovskaya). 4. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo literatury po chernoy i tsvetnoy metallurgii (for Yezdakova, Sushkin). 5. Gosgortekhzdat (for Lyubimov). 6. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo mashinostroitel'noy literatury (for Ponomareva). 7. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo khimicheskoy literatury (for Reykhtsaum).
(Engineering--Nutation) (Units)

BAKHMACHEVSKIY, Boris Ivanovich; ZAKH, Rene-Yulian Gustavovich; LYZO,
Georgiy Pavlovich; SUSHKIN, Igor' Nikolayevich; SHCHUKIN,
Aleksey Aleksandrovich; OSIFOVA, T.V., red.izd-va;
DOBUZHINSKAYA, L.V., tekhn. red.

[Heat engineering; course in general heat engineering]
Teplotekhnika; kurs obshchei teplotekhniki. [By] B.I.Bakh-
machevskii i dr. Moskva, Metallurgizdat, 1963. 605 p.
(MIRA 17:2)

1ST AND 2ND QUOTES										3RD AND 4TH QUOTES									
PROCESSES AND PROPERTIES INDEX																			
<p><i>Ca</i></p> <p>Thermal capacity of monatomic liquids. I. N. Godnev and I. V. Sushkin. <i>J. Exptl. Theoret. Phys. (U. S. S. R.)</i> 9, 1142-6 (1959).—Assuming that the av. fractions x and $1-x$ of all mole. are in translatory and vibrational motion, resp., G. and B. derive the equation $C_v = \frac{1}{2}RT/Bee +$</p> <p>$C_v(\theta/T)(1 - BT\theta) + [(RT + U_0)/RT^2][\frac{1}{2}RT + U_0 - U(\theta/T)BT\theta]$, where $\theta = -U/RT$, and $C_v(\theta/T)$ is the Einstein function. This equation is in satisfactory agreement with the decrease of C_v with T and with values of C_v over 6 Cal. near the m. p. and is further in good agreement with data of Eucken and Hauck (<i>C. A.</i> 22, 4288) on the heat capacity of liquid argon. F. H. Rathmann</p> <p><i>Instituto Chem. Tech. Inst.</i></p>																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										EXPT. DATA - LIT.									
SOURCE SYNONYM										EXPT. DATA - LIT.									
1950-59										1960-69									
1970-79										1980-89									
1990-99										2000-09									

COMMON ELEMENTS										COMMON VARIABLE NOTES									
1ST AND 2ND GROUPS										3RD AND 4TH GROUPS									
1ST AND 2ND GROUPS										3RD AND 4TH GROUPS									
<p>ca</p>										<p>2</p>									
<p>The heat capacity of monatomic liquids. I. N. God- new and I. V. Smolin. <i>Trans. Inst. Chem. Tech. USSR</i> (U.S.S.R.) 1960, No. 3, 23-7. — See C. A. 35, 13. W. R. Henn</p>																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>										<p>RESEARCH NOTES</p>									

SUSHKIN, I. V.

"On the Transformation of the Eidinoff and Aston Determinant," i Teoret. Fiz., 11,
No. 1, 1941. Chemico-Technological & State Pedagogical Inst., -1940-.

SUSKIN, I. V.

"Theory of Superfluidity of Fermi Systems"
Uch. Zapiski Ivanovskogo Ped. Inst.,

The excitation spectrum of a Fermi system of interacting particles is studied by means of second quantization. A simplification is introduced by equating the mean value of numbers filling the Fermi sphere to one, and the number outside the Fermi sphere to zero. Introducing the obtained results to the case of superfluidity the author derives the temperature dependence for E_{15} on the magnetic field. (RZhFiz, No 2, 1988)

So: Sum. 492, 12 May 55

SOROKIN, V.S.; SUSHKIN, I.V.

Stability of equilibrium of a conducting liquid heated from below and
situated in a magnetic field. Zhur. eksp. i teor. fiz. 38 no. 2: 612-620
F '60. (MIRA 14:5)

1. Ivanovskiy gosudarstvennyy pedagogicheskiy institut.
(Magnetohydrodynamics)

SUSHKIN, I.V.

Determining the Planck constant in practical work of a general physics
class. Izv.vys.ucheb.zav.;fiz.no.2:172-173 '63. (MIRA 16:5)

1. Ivanovskiy pedagogicheskiy institut.
(Quantum theory) (Physics—Study and teaching)

SUSHKIN, N. G.

USSR/Electronics
Microscopes, Electron
Electrical Equipment

Sep 48

"Selecting the Material for the Pole Shoes of an Electron Microscope," Sh. M. Rakhimov,
N. G. Sushkin, 6 $\frac{1}{2}$ pp.

"Zhur Tekh Fiz" Vol XVIII, No 9

Treats under: (1) determination of focal length of magnetic lens, (2) measurement of
magnetic field distribution along the axis of the lens, and (3) discussion of results
and conclusions. Submitted 17 Jan 48.

PA 3249T18

SUSHKIN, N. G.

PA 53/49T95

Oct 48

USSR/Physics
Photoelectrons
Photography

"Disagreements With the 'Law of Relationships'
caused by the Photographic Activity of Electrons,"
N. G. Sushkin, L. A. Kovner, Moscow Power Eng Inst
imeni V. M. Molotov, 22 pp

"Dok Ak Nauk SSSR" Vol LXII, No 5

Investigations show that disagreements with the "law
of relationship" occurred in several types of film
produced by NIKFI (Sci Res Cine-Photo Inst), in
isochronic film (Factory No 2), microfilm (NIKFI),
and other films. Further research is being conducted
on the role of various factors in upsetting subject
law. Submitted by Acad S. I. Vavilov, 16 Aug 48.

53/49T95

SUSHKIN, N. G.

Elektronnyi mikroskop. Moskva, Gostekhnizdat, 1949. 276 p. illus. (Fiziko-matematicheskaya biblioteka inzhenera)

Bibliography: p. (274)-276

Electron microscope \

DLC: QH211.S95

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

P.A.

*Industrial and scientific
applications of Photography*

589

Small Electron Microscope. N. G. SUSHKIN, P. V. ZATSEV and O. N. RYBAKOV. *Elektrichestvo*, 1949, No. 12, 6-9.—A new Russian simplified design, suitable for series production, is described. It is operated at 35-50 kV. and has a magnification of 1,000-15,000. The electron gun is at the bottom of the central column, the fluorescent screen at eye level and the photographic camera at the top. The gun is fully screened, e.h.v. being supplied by a screened cable. A condenser lens and a two-lens magnetic focus system are used. Details of the photographic arrangements, controls, vacuum system and stabilized supplies, etc., are given, as well as a cross-sectional drawing of the column.

778.31

Elec. Eng. Abs.

USSR/Physics

May 49

Electron Diffraction
Electron Microscopy

"Alternate Diffraction of Flying Electrons,"
L. Biberman, N. Sushkin, V. Fabrikant, Moscow
Power Eng Inst Imeni V. M. Molotov, 2 pp

"Dok Ak Nauk SSSR" Vol LXVI, No 2

Experiments on diffraction of electrons are
usually carried out in powerful beams. Experience
has shown the diffraction picture is independent
of the intensity of the electron beam. On this
basis, an imaginary experiment is discussed in
terms of quantum mechanics in which electrons are

52/49799

USSR/Physics (Contd)

May 49

diffracted one by one and wave properties are
ascribed to each particle. At present there can
hardly be any doubt as to the correctness of this
assumption; however, importance of experiments on
diffraction of particles is so great that there
is some point in carrying out a real experiment
on diffraction of single electrons. Describes
such an experiment, using a modified electron
microscope, type EM-100. Includes two photo-
graphs. Submitted by Acad S. I. Vavilov,
16 Mar 49.

52/49799

SUSHKIN, N. G.

Dec 49

USSR/Physics - Electron Scattering
Electron Microscope

"Scattering of Electrons in Thin Layers," L. M. Biberman, Ye. M. Vtorov, I. A. Kovner, N. G. Sushkin, B. M. Yavorskiy, Moscow State U imeni V. I. Molotov, 4 pp

"Dok Ak Nauk SSSR" Vol LXIX, No 4

Results of experiments using electron microscope EM-100 to measure angular distribution of electrons passed through thin films and scattered in the interval from $3 \cdot 10^{-4}$ to $3 \cdot 10^{-2}$ radian showed measurements in this interval are quite reliable. However, number of 60 Kelectrons scattered was much greater than number calculated for very small angles ($3 \cdot 10^{-3}$ radian). Submitted by Acad S. I. Vavilov 6 Oct 49.

PA-155T64

USSR/Electronics - Photography

Jul/Aug 51

"Resolving Power of Photoemulsion for Electron Rays," N. G. Sushkin, Ye. N. Vetrov, Moscow Inst of Power Eng Iment Molotov

"Iz Ak Nauk SSSR, Ser Fiz" Vol XV, No 4, pp 402-407

Russian-made electron microscopes provide medium magnification and further optical magnification of photographic plates requires good resolving power. Methods applied for measurements of resolving power of photoemulsion are those by

195T39

USSR/Electronics - Photography
(Contd.)

Jul/Aug 51

B. Borries (Zs fuer Physik, 122, 1944 and 119, 1942) and by M. Ardenne (Elektronenbermerkroscopie, Berlin, 1940). Results tabulated.

195T39

SUSHKIN, N. G.

PA 195T39

SUSHKIN, N. G.

USSR/Electronics - Photography

Jul/Aug 51

"Electronic Sensitometry," N. G. Sushkin, I. A. Kovner. Ye. N. Vtorov, Moscow Inst of Power Eng imeni Molotov

"Iz Ak Nauk SSSR, Ser Fiz" Vol XV, No 4, pp 395-402

Subject deals with quant photographic properties of materials. Investigated 12 types of Russian-made plates; and plotted curves of emulsion sensitivity vs charge density. Tabulates electronic parameters of plates. Authors are grateful to V. A. Fabricant and K. S. Bogomolov for advice.

195T38

PA 195T38

SUSHKIN, N. G.

Electron Microscope. (The Engineer's Physicomathematical Library.) Glavpoligrafizdat, Main Polygraphic Publishing House, 276 pp, 1952.

Sushkin, N.G.

USSR/Optics - Photography

K-11

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 13247

Author : Sushkin, N.G., Fomina, I.A.

Inst : Moscow Power Institute, USSR

Title : Optimum Conditions for the Development of Photographic Plates, Exposed by Medium Energy Electrons.

Orig Pub : Zavod. laboratoriya, 1956, 22, No 8, 961-964

Abstract : An investigation was made of the kinetics of the development of electronographic plate E-III, exposed in an electron microscope-sensitometer with electrons of energies 32, 60, and 80 kev, and developed in seven different developers. From the resultant families of density curves D at various conditions of development, and families of curves of the kinetics of the development for various values of electron energy and for various values of the charge

Card 1/2

USSR/Optics - Photography

K-11

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 13247

density, it follows that the maximum of D at 32 kev is given by the "Final'" brand developer. The NIKFI X-ray developer gives a somewhat lower value of D with considerably less fog. At energies of 60 and 80 kev, the X-ray developer is much superior, with respect to the resultant value of D, than all other developers. For developer brands "Final'" and "Atomal'" one observes an exceedingly slow increase in D with time of development for all values of electron energy. Special experiments have shown that this feature is due to the specific nature of the photographic action of the electron, and is not observed when light sensitograms are developed. The optimum development mode for the plate E-III in X-ray developer NIKFI is nine minutes at $18 \pm 0.5^\circ$.

Card 2/2

Stashkin
VUL'FSON, K.S., prof.; GUREVICH, M.M., prof.; MESHKOV, V.V., prof.; NILENDER, R.A., prof. YUROV, S.G., kand. tekhn. nauk; SOKOLOV, M.V., prof.; BIBERMAN, L.M., kand. tekhn. nauk; BUTAYEVA, F.A., kand. tekhn. nauk; IVANOVA, N.S., kand. tekhn. nauk; SUSHKIN, N.G., kand. tekhn. nauk.

Valentin Aleksandrovich Fabrikant; on his 50th birthday. Svetotekhnika 3 no.12:24-25 D '57. (MIRA 11:1)
(Fabrikant, Valentin Aleksandrovich, 1907-)

AUTHORS:

Sushkin, N. G., Kushnir, Yu. M.

57-28-4.35/39

TITLE:

On the Action of Electrons Upon Multilayer Photographic
Films (O deystvii elektronov na mnogosloynnye fotoplenki)

PERIODICAL:

Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 4,
pp. 908-909 (USSR)

ABSTRACT:

For the determination of the behavior of a multilayer photographic film on irradiation by electrons the authors performed special experiments, the results of which are given in this paper. The experiments were performed in two electron-microscopes - an electron-microscope 3 M-100 (References 1, 2) and a reflection-electron-microscope of special construction. It is shown that the exposure of the multilayer colorphotographic film to electrons of different velocities causes a different coloring of the film. It is further shown that the color shade depends on the velocity of the electrons. With a modification of the velocity of electrons mainly the shade of the film changes. On a modification of the time of exposure by the beam and of the intensity mainly the saturation of the color changes.

Card 1/2

GUTKIN, A.M., kand.fiz.-matem.nauk; SUSHKIN, N.G., kand.tekhn.nauk;
FADEYEVA, V.S., kand.tekhn.nauk; SHCHERBAKOVA, Ye.A., assistant

Separation of fine fractions with the help of an electron
microscope. Sbor. trud. VNIINSM no.2:130-161 '60. (MIRA 15:1)
(Binding materials)
(Electron microscope)

ACCESSION NR: AP4004154

S/0294/63/001/002/0313/0315

AUTHOR: Sushkin, N. G.

TITLE: Czochralski method of growing refractory metal single crystals with electron beam heating

SOURCE: Teplofizika vy*sokikh temperatur, v.1, no. 2, 1963, 313-315

TOPIC TAGS: single crystal, single crystal growth, Czochralski method, electron beam heating, refractory metal single crystal, metal single crystal, metal crystal growing, electron beam

ABSTRACT: Since ordinary crystal growing by zone purification with electronic heating is very labor consuming and the size of the single crystals is quite limited, the application of the Czochralski method of drawing single crystals from a melt of a refractory material is of great practical interest. If the Czochralski method is combined with electronic rather than arc heating (the pool of

Card 1/2

ACCESSION NR: AP4004154

molten metal is produced by an electron beam), the feasible crystal diameter is increased and in principle has no limit. Apparatus used to grow single crystals of niobium and molybdenum is described, with a drawing rate 4 mm per minute, anode voltage 12 kV, anode current 1.5, the cathode power 15 V x 60 A. Orig. art. has: 2 figures.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute)

SUBMITTED: 03Jul63 /

DATE ACQ: 26Dec63

ENCL: 01

SUB CODE: PH, ML

NO REF SOV: 000

OTHER: 000

Card 2/3 2

L 58997-65 EWT(1)/EPA(w)-2/EWA(m)-2 P1-4/P1-6 IUP(1) AT

ACCESSION NR: AR5016008

UR/0058/65/000/005/H083/H083

SOURCE: Ref. zh. Fizika, Abs. 5Zh554

AUTHORS: Sushkin, N. G.; Perezhogin, M. I.

TITLE: Experimental investigation of the trajectory of electrons in a magnetron gun

CITED SOURCE: Elektrotermiya. Nauchno-tekhn. sb., vyp. 37, 1964, 25-26

TOPIC TAGS: magnetron gun, electron trajectory, electron beam, electron optical bench, electron probe

TRANSLATION: The authors describe an installation (electron-optical bench) for the investigation of the structure of an electron beam and for finding directly the trajectory of the electrons in a magnetron gun. The installation consists of the gun proper and of an observation bench. A moving fluorescent screen is placed in the path of the electron beam. It is possible to move the screen along the axis of the gun. The coordinates of the electron beam are determined by the position of the screen. The electron beam is observed through a microscope. The electron beam is produced by the magnetron gun. The coordinates of this element of the beam can be readily determined with the aid of the moving fluorescent screen. The apparatus makes it possible to carry out investigations at accelerating voltages of 7. The coordinates of the electron beam are presented for two modes of the magnetron gun. A. Kabanov.

Card 1/2

ACCESSION NR: AR5016008

element produced by the magnetron gun. The coordinates of this element of the beam can be readily determined with the aid of the moving fluorescent screen. The apparatus makes it possible to carry out investigations at accelerating voltages of 7. The coordinates of the electron beam are presented for two modes of the magnetron gun. A. Kabanov.

SUBJECT: NP, EN

ENCL: 00

Card 2/2

L 45522-66 EWT(1) IJP(c) AT/JM

ACC NR: AR6013706

SOURCE CODE: UR/0058/65/000/010/H066/H066

AUTHOR: Sushkin, N. G.; Alferova, Ye. V.; Bash, Yu. M.; Perezhogin, M. I.

TITLE: Graphic construction of the trajectory of electrons in a magnetron gun

SOURCE: Ref. zh. Fizika, Abs. 10Zh444

REF. SOURCE: Tr. Vses. n.-i. in-ta elektroterm. oborud., vyp. 1, 1965, 50-65

TOPIC TAGS: magnetron, electron motion, electron optics, electron gun

ABSTRACT: The possibility is considered of using a magnetic field to focus the electrons in powerful (up to 100 kW) magnetron guns for electronic heating. In this case the anode voltage can be reduced to 10 -- 15 kV; the requirements on the accuracy of the installation of the anode and the cathode are also less stringent. For a consistent design of the optical system, a graphic method has been developed for constructing the electron trajectories (ET) in superimposed homogeneous and inhomogeneous electric and magnetic fields with axial symmetry. The ET are constructed in the meridional plane by the radius-of-curvature method, $R = f(r, z)$, and the plane itself is rotated together with the electron at an angular velocity $\dot{\varphi} = f(t)$. An advantage

Card 1/2

L 45522-66

ACC NR: AR6013706

of the method is the possibility of calculating the ET not only in the regions near the axis, but also at arbitrary distances away from the axis. The calculated ET is in good agreement with the electron beam observed in a model. A shortcoming of the method is that the calculations are complicated and unwieldy. N. Mayer. [Translation of abstract]

SUB CODE: 20, 09

Card 2/2 *egh*

SUSHKIN, V. (Tula).

Municipal inspections of volunteer fire brigades and fire-technical
committees. Pozh. delo 4 no.6:9 Je '58. (MIRA 11:5)
(Tula--Factories--Fires and fire prevention)

LEONOV, P.V., inzh.; SUSHKIN, V.A., inzh.

Determination of the capacity of the traction engine of a self-propelled car for extraction galleries with complex hypsometry. Nauch. trudy Tul. gor. inst. no.4:165-172 '61. (MIRA 16:8)

(Moscow Basin--Mine railroads--Cars)

POLEZHAYEV, P.P., dotsent; STREL'NIKOV, L.P., dotsent, kand. tekhn. nauk;
SUSHKIN, V.A., inzh.

New system of magnetizing the driving wheels of mine locomotives.
Nauch. trudy Tul. gor. inst. no.4:223-231 '61. (MIRA 16:8)

(Mine railroads)

1ST AND 2ND SIDES										100 AND 1TH COVER									
SUSHKIN, V. G.										16									
MATERIALS INDEX										COMMON VARIABLE INDEX									
<p>Small-Dimension Electron Microscope. (In Russian.) W. G. Sushkin, P. V. Zaitsev, and O. N. Rybakov. <i>Elektrichestvo</i> (Electricity), Dec. 1949, p. 6-9. Describes, diagrams, and illustrates the above in which the microscope is attached to a bench/resem- bling an ordinary writing desk. Operating character- istics are given.</p>																			
ASIA-SLA METALLURGICAL LITERATURE CLASSIFICATION										FROM SCHOLAR									
1ST AND 2ND SIDES										100 AND 1TH COVER									

BOGORODSKIY, Ye.S.; SUSHKIN, V.S.

Mechanization of assembling operations at the "Tizpribor" Plant.
Priborostroenie no.2:22-23 F '62. (MIRA 15:2)
(Instrument manufacture)

GCGOL', L.G.; BELIKOVA, V.P.; SUSHKINA, A.G.; RAYKINA, V.G.; PUGACHEVA, Z.F.

Characteristics of a typhoid fever outbreak at an industrial enterprise. Trudy TSIU 68:35-37 '64. (MIRA 18:5)

SUSHKINA, A.P.

33973 SUSHKINA, A.P. Pitaniye
I Rost Nyekotorykh Bryukhonogikh
Mollyuskov Trudy Vsesoyuz
Gidrobiol O-Va, T. I, 1949 S. 118-31
-Bi, bliogr: 7 Nazv

SO: Letopis' Zhurnal'nykh Statey, Vol. 42, Moskva, 1949

SUSHKINA, A.P.

Vertical distribution of *Calanus finmarchicus* (Gunn.) and its fatness. Dokl. AN SSSR 141 no.5:1208-1210 D '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii. Predstavleno akademikom Ye.N. Pavlovskim.

(Atlantic Ocean—Copepoda)

SUSHKINA, A.P.

Diurnal rhythm of feeding and vertical migrations of *Calanus finmarchicus* (Gunn.) as related to its fatness. Vop. ekol. 5:211-212
'62. (MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo
rybnogo khozyaystva i okeanografii, Moskva.
(Calanus)

SUSHKINA, A.P.

Rate of fat consumption at various temperatures and the life
cycle of *Calanus finmarchicus* (Gunn.) and *C. Glacialis* Jaschn.
Zool.zhur. 41 no.7:1004-1012 J1 '62. (MIRA 15:11)

1. U.S.S.R. Marine Fishery and Oceanography Research Institute,
Moscow.

(Calanus)

SUSHKINA, A.P.

Vertical migration and diurnal rhythm of the feeding of *Calanus finmarchicus* (Gunn.) as related to its age and fatness. TRUDY
VNIRO 46:235-253 '62. (MIRA 15:10)
(Calanidae)

SUSHKINA, A.P.

Plankton organisms as indicators of currents in the waters of
the Faeroe-Iceland area and adjacent regions. TRUDY VNIRO 46:267-
287 '62. (MIRA 15:10)

(Arctic regions—Marine biology)

(Arctic regions—Ocean currents)

SUSHKINA, L. M., VERETA, L. A.

"Transmission of tickborne encephalitis in the natural foci of the Khabarovsk region." p. 61

Desyatoye Soveshchaniye po parazitologicheskim problemam i Prirodnoschagovym boleznyam. 22-29 Okt'yabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

VERETA, L.A.; SUSHKINA, L.M.

Some results of a study on the infectivity of ixodid ticks by the encephalitis virus in the southern areas of Khabarovsk Territory. Vop.virsu. 5 no.3:292-297 My-Je '60. (MIRA 13:9)

1. Khabarovskiy nauchno-issledovatel'skiy institut epidemiologii i gigiyeny.

(Khabarovsk Territory--ENCEPHALITIS)

AL'SHITS, I.Ya., kand.tekhn.nauk; SUSHKINA, L.N., inzh.

Investigating disulfide of molybdenum as a lubricant. [Trudy]
TSNIITMASH no.90:124-145 '58. (MIRA 11:10)
(Molybdenum compounds--Testing)

SLUSHKINA, L. N.

PHASE I BOOK EXPLOITATION 507/5055

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Oldrodinamicheskaya teoriya smazki. Oproy skol'zheniya. Smazka i smazochnyye materialy (Hydrodynamic Theory of Lubrication, Slip Bearings, Lubrication and Lubricant Materials) Moscow, Izd-vo AN SSSR, 422 pp. Scrata slip inserted. 3,800 copies printed. (Series: Itz Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Rep. Eds for the Section "Hydrodynamic Theory of Lubrication and Slip Bearings": Ye. M. Gut'yat, Professor, Doctor of Technical Sciences, and A. K. D'yachkov, Professor, Doctor of Technical Sciences; Resp. Ed. for the Section, Lubrication and Lubricant Materials: G. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ia. Kiebanov; Tech. Ed.: O. M. Gus'kova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the 11th Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. From the discussion and

Hydrodynamic Theory (Cont.) 507/5055

Korovin, M. V. On Unsteady Motions of the Journal in a Bearing. "Treniya i iznos v mashinakh" T. 14, Izd-vo AN SSSR, 1950. 164

II. LUBRICATION AND LUBRICANT MATERIALS

Lubricant Materials and Wear

Vinogradov, G. V. Some New Methods of Producing and Investigating Lubricant Materials 165

Al'mita, I. Ya., Ye. M. Oparina, L. M. Sanyurikzhina, and G. M. Shapovalov. Experiment Using Disulfide of Molybdenum as a Lubricant Material 172

Barborod'ko, M. D., M. T. Pavlovskaya, and V. V. Arkharova. Effect of the Composition and the Character of Osseous Media on the Wear-Resistant Properties of Petroleum Lubricating Oils 177

Vintzel, S. V. Contact Effect in Wear as a Factor in the Oxidation of the Oil in Engines 187

Vinogradov, G. V., V. V. Arkharova, M. T. Pavlovskaya, and M. D. Barborod'ko. Wear-Resistant; and Antifriction Properties of Salt Fusions 191

Vishnyakov, V. A., and V. G. Lebedev. Abrasive Wear of Roller Bearings in the Presence of a Lubricant Material 198

Klimov, K. I., and G. I. Kichkin. Critical Temperatures of an Oil Film in Sliding Contact of Steel Surfaces, and the Dispersive Capacity of the Oil 201

Lazovskaya, O. V. Methods for Determining the Critical Temperatures of an Oil Film in the Case of Friction of Steel Against Antifriction Alloys 212

Morozova, O. Ya. Wear-Resistant Reactions of Sulfur-organic Compounds as Additives to Lubricant Oils 218

507/5055-7

PHASE I BOOK EXPLOITATION

SOV/5053

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Iznos i iznosostoykost'. Antifrictionnyye materialy (Wear and Wear Resistance. Antifriction Materials) Moscow, Izd-vo AN SSSR, 1960. 273 p. Errata slip inserted. 3,500 copies printed. (Series: Its: Trudy, v. 1)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Resp. Ed.: M. M. Krushchov, Professor; Eds. of Publishing House: M. Ya. Klebanov, and S. L. Orpik; Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERPAGE: The collection, published by the Institut mashinovedeniya, AN SSSR (Institute of Science of Machines, Academy of Sciences SSSR) contains papers presented at the XII Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in 5 main areas: 1) Hydrodynamic Theory of Lubrication and Friction Bearings (Chairman: Ye. M. Gut'yar, Doctor of Technical Sciences, and A. K. D'yachkov, Doctor of Technical Sciences); 2) Lubrication and Lubricant Materials (Chairman: O. V. Vinogradov, Doctor of Chemical Sciences); 3) Dry and Boundary Friction (Chairman: B. V. Deryagin, Corresponding Member of the Academy of Sciences SSSR, and I. V. Kragel'skiy, Doctor of Technical Sciences); 4) Wear and Wear Resistance (Chairman: M. M. Krushchov, Doctor of Technical Sciences); and 5) Friction and Antifriction Materials (Chairman: I. V. Kragel'skiy, Doctor of Technical Sciences, and M. M. Krushchov, Doctor of Technical Sciences). Chairman of the general assembly (on the first and last day of the conference) was Academician A. A. Blagonravov.

L. Yu. Fruzhan'skiy, Candidate of Technical Sciences, was scientific secretary. The transactions of the conference were published in 3 volumes, of which the present volume is the first. This volume contains articles concerning the wear and wear resistance of antifriction materials. Among the topics covered are: modern developments in the theory and experimental science of wear resistance of materials, specific data on the wear resistance of various combinations of materials, methods for increasing the wear resistance of certain materials, the effects of friction and wear on the structure of materials, the mechanism of the seizing of metals, the effect of various types of lubricating materials on seizing, abrasive wear of a wide variety of materials and components under many different conditions, modern developments in antifriction materials, and the effects of finish machining on wear resistance. Many personalities are mentioned in the text. References accompany most

ANTIFRICTION MATERIALS

Alshits, I. Ya., and L. M. Sushkina. Testing of Antifriction Materials and Platings	240
Zil'berg, Yu. Ye. Results of Widespread Use of an Aluminum Alloy in the Bearings of Diesel Tractors	246
Krasnikhenko, L. V. New High-Antifriction Materials Obtained by Electroplating With a Metal Spray Gun	251
Kuznetsov, A. D. On the Establishment of a Relationship Between the Physical Properties of Antifriction Metal Alloys and Their Running-in	257
Polyakov, A. A. Investigation of the Antifriction Properties of Throatium Plated on a Rolled Surface	263
Reports Presented at the Conference, But Printed in Other Publications	270

Card 10/13

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25529

S/123/61/000/011/004/034
A004/A10115.6000

* AUTHORS: Al'shits, I. Ya.; Sushkina, L. N.

TITLE: New antifriction materials and coatings

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 11, 1961, 22, abstract
11A175 (V sb. "Povysheniye iznosostoykosti i sroka sluzhby mashin.
v. 2". Kiyev, AN UkrSSR, 1960, 18-27)

TEXT: The authors present the results of investigating the properties of antifriction materials: rubber, materials on the base of graphite, fluoroplastics, polyamides, pressed wood pulp, cord fibers, cotton fibers and $\Delta\Delta$ (DTs) plastics. They determined the resistance to wear and coefficient of friction μ of five rubber grades of 86-54 shore hardness during boundary lubrication by clean water and water with abrasives. The counterbody rollers were made of 2 13 (2Kh13) grade steel, sliding speed $v = 0.4$ m/sec, $p = 1.5$ kg/cm², test duration = 24,000 revolutions. The wear magnitude of the counterbody was insignificant, while the rubber wear was 17-155 μ . An addition of 10% abrasive to the water increased the counterbody wear by 100-300 times and reduced the rubber wear. The friction coefficient μ of the rubber is lower when operating with an abrasive than with cle

Card 1/3

25529

S/123/61/000/011/004/034
A004/A101

New antifriction materials and coatings

clean water lubrication. The test with rubber bearings proved that at $p = 70 \text{ kg/cm}^2$, $\mu = 0.002-0.008$. A reduction in the water consumption to $0.125 \text{ liter} \cdot \text{hour/cm}^2$ at $p = 20 \text{ kg/cm}^2$ and $v = 3.45 \text{ m/sec}$ does not affect the operation of the bearings. Rubber bearings can resist under hydrodynamic lubrication conditions a pressure of $p = 100-200 \text{ kg/cm}^2$. Under boundary lubrication conditions rubber has inferior characteristics, both of wear and coefficient of friction, than plastics. The load capacity of the investigated rubber grades does not exceed 15 kg/cm^2 . The testing of graphite impregnated with 54 (BN) babbitt and lead during friction in a couple with rollers or shafts made of 45 grade steel of a hardness of 48-52 R_c showed the resistance to wear ($\mu = 0.16-0.23$) approximately twice as high as that of non-impregnated graphite. When graphite impregnated with metal is water-lubricated, its wear increases by a factor of 20, $\mu = 0.06-0.09$. Lubrication with oil results in $\mu = 0.009-0.044$. Of the plastics the most durable one concerning the effect of aggressive media is fluoroplastic 4 with an operating temperature of 250° , a water absorption of 0 and a hardness of $3-4 \text{ kg/mm}^2$. The best polyamide resins for bearings are the grades no. 54 and 68. Bearings from no. 54 resins lubricated with water or oil at a speed of 4 m/sec operated under a specific pressure of 300 kg/cm^2 and higher. Bearing bushes coated with a powdered Al and Fe mixture (Al- 30%, the rest being Fe) and Cu and

Card 2/3

25529

New antifriction materials and coatings

S/123/61/000/011/004/034
A004/A101

Fe mixture (Cu - 40%, the rest being Fe) had a load capacity $p = 70-100 \text{ kg/cm}^2$ and $v = 1.1 \text{ m/sec}$. Bearing bushes coated with a mixture of phenol formaldehyde resin and 10% graphite operated satisfactorily on the average up to a load of 120 kg/cm^2 when lubricated with water and $v = 1.1 \text{ m/sec}$; when lubricated with oil the load increased to 150 kg/cm^2 . At $v = 1.1 \text{ m/sec}$ and lubrication with liquid oil the load capacity of bearing bushes from wood pulp amounts to $65-70 \text{ kg/cm}^2$. When the speed is increased to $v = 4 \text{ m/sec}$ the load limit is reduced to $45-50 \text{ kg/cm}^2$. The permissible load with water lubrication amounts to $70-100 \text{ kg/cm}^2$ at $v = 1.1 \text{ m/sec}$. Cord fiber is a plastic with a filler from the wastes of car tire manufacture, i. e., the threads of cord fabric additionally cleaned from rubber. Cotton fiber is made from emulsion resol resin and degreased cotton combinings. The utilization of mineral oil as lubricant deteriorates the operation of all plastics. The limit load for plastics at $v = 1 \text{ m/sec}$ in which the fabric is made on the base of wood cellulose does not exceed 40 kg/cm^2 , for cord fiber not more than 20 kg/cm^2 , and only textolite operates at loads of up to 100 kg/cm^2 . The load capacity of plastics decreases with increased speed if lubrication is effected with oil. Correspondingly also μ increases considerably when working with oil lubrication (0.03-0.1) in comparison with water lubrication (0.002-0.005).

G. Mekhed

[Abstracter's note: Complete translation]
Card 3/3

S/122/60/000/003/001/015
A161/A130

AUTHORS: Al'shits, I.Ya., Candidate of Technical Sciences; Antoshin, Ye.V.;
Sushkina, L.N.; Edel'son, A.M.; - Engineers

TITLE: Pseudoalloys as replacement for bronze and babbitt

PERIODICAL: Vestnik mashinostroyeniya, no. 3, 1960, 3 - 6

TEXT: Information on Soviet pseudoalloys used lately for bearing linings and applied by spraying is presented. It is stated that the Soviet pseudoalloy compositions are close to compositions used in foreign practice for various machine bearings. The economic importance of these replacements for nonferrous metals is stressed. VNIIAVTOBEN jointly with TsNIIIMASH and VPTI tyazheloego mashinostroyeniya (VPTI of Heavy-Duty Machinery) have carried out comparative tests of pseudoalloys with tin bronze, tin-free bronze, and B 83 (B83) babbitt. The test data have been used for an industrial standard (normal) for antifriction coatings issued by VNIIAVTOBEN. The compositions of pseudoalloys on steel and copper base used in tests are given (Table 1):

Card 1/3

Pseudoalloys as replacement for bronze and babbits

S/122/60/000/003/001/015
A161/A130

Major element content in weight, %

Aluminum-steel AZh-50 (AZh-50)

Copper-steel MZh-75 (MZh-75)

Brass-steel LZh-75 (LZh-75)

Steel Zh100 (Zh100)

Copper-steel MZh-50 (MZh-50)

Copper-lead MC-25 (MS-25)

Copper-tin-lead M75NOC 30 (M75PC30)

Al	Fe	Cu	Zn	Pb	Sn	Sb
48-50	50-52	-	-	-	-	-
-	70-75	25-30	-	-	-	-
-	70-75	17-20	8-10	-	-	-
-	100	-	-	-	-	-
-	48-50	50-52	-	-	-	-
-	-	70-75	-	25-30	-	-
-	-	90-91	-	6-7	2-3	1

The linings were applied with a three-wire metal spraying MFF-1 (MG-1) head of VNIIAVTOGEN design and a three-phase TM-2 (TM-2) spraying apparatus of VPTI of Heavy Duty Machinery; an LTC (LTS) test machine of TsNIIIMASH was used for tests for running-in and load capacity. The friction factor of pseudoalloys was approximately the same as of bronze (except of Zh100 steel); Zh100 steel had the lowest load capacity at sliding velocity $v = 1 - 4$ m/sec ($45-75$ kg/cm²), and the heat-treated copper-lead "MS25" had the highest ($200-220$ kg/cm²). The best of steel-containing compositions in respect to antiscoring properties was AZh-50 (50% Fe +

Card 2/3

Pseudoalloys as replacement for bronze and babbitt

S/122/60/000/003/001/015
A161/A130

+ 50% Al). These linings did not jam on steel crunnion and had a brite run-in surface after test. The conclusion was made that the pseudoalloys obviously can replace scarce bronze and babbitt. This conclusion was confirmed by the results of long-time tests of metal-sprayed bearings at the Moskovskiy shinnyy zavod (Moscow Tire Plant), Podol'skiy mekhanicheskiy zavod (Podol'sk Machine Plant), Rostovskiy zavod sel'skokhozyaystvennykh mashin (Rostov Agricultural Machinery Plant) and other industry plants. Bearing bushings lined with MZh-75 were still good for further use after 18 months in hydraulic 300-atm pumps, compared with a life of bronze bearings of only 2.5 months. There are 6 figures, 2 tables and 3 Soviet-bloc references.

Card 3/3

CHANGES IN SOIL BIOCHEMICAL PROCESSES UNDER THE INFLUENCE OF CLOVER CULTURE. N. N. SUMINKINA. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat.* 1931, No. 9, 1210-62 (in English 1232-3).—In chernozem soils of Dnieper low lands introduction of clover culture accelerates microbiological activity and increases intensity of the biochem. processes, though these effects become less apparent with depth. Close interdependence is observed between growth of plants and microbiological activity of the soil. J. K.

1ST AND 2ND ORDERS																		3RD AND 4TH ORDERS																	
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<p><i>Microflora of soil from the delta of the Lena.</i> N. S. SHUMKINA. Trans. Dohn- chaiev Soil Inst. 6, 191-6(1932).--in the profile investigated bacterial activity was very slight. Nitrifying, cellulose-decomposing and aerobic putrefying bacteria are absent.</p> <p>Microbiol. life is concd. in A horizon (2-5 cm.). Protein decompn. is caused by molds or anaerobic putrefying bacteria.</p>																		<p>15</p>																	
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																		<p>EZ</p>																	
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<p>3C</p> <p>Nitrification of forest soils and its dependence on the character of the plantation, felling, and burning of the felled timber. N. I. BAKURINA (Bull. Acad. Sci. U.S.S.R., 1953, 111-114).—The soils of forests of <i>Pinus calligonum</i> (I) and <i>Pinus radiata</i> (II) show no nitrification, which is, however, vigorous in those of <i>Pinus fenzlana</i> (III) forests. The effect of felling on the intensity of the nitrification is nil with (I), slight with (II), and sometimes markedly stimulating with (II). Moderate burning of the felled timber always stimulates nitrification, in some cases within 3 days; this effect has been found to persist for 5 years. Mixing of the mineral soil with the top soil also favours nitrification.</p> <p>T. H. P.</p>										<p>13 III</p>									
<p>ASB-11A METALLURGICAL LITERATURE CLASSIFICATION</p>										<p>8-17 1000 1000</p>									
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<p><i>ea</i></p> <p>Influence of irrigation on the soil microflora. N. N. Sushkina. Trans. Irrigation Comm., Acad. Sci. U. S. S. R. 1, 87-94(1965). Saline soils on irrigation can support a microflora of the kind required for agricultural plants. The application of $\text{CaCO}_3 + (\text{NH}_4)_2\text{SO}_4$ to irrigated land gave rise to intense nitrification. B. C. A.</p>																			
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1ST AND 2ND COLUMNS										3RD AND 4TH COLUMNS									
PROCESSES AND PROPERTIES INDEX										PROCESSES AND PROPERTIES INDEX									
<p>07</p> <p>Nitrification in forest soils by means of planting, felling and clearing by fire. N. N. Sushkova. <i>Bull. acad. sci. U. R. S. S., Classe sci. math. nat.</i>, 1933, No. 1, 111-00.</p> <p>Soils of forests of the <i>Pinetum callunosum</i> and <i>Piceetum oxalidosum</i> types are not capable of nitrification. On the contrary, soils of forests of <i>Piceetum fontinale</i> vigorously nitrify the N of the litter. Felling causes no intense nitrification in forests of the <i>Pinetum callunosum</i> type, and has only a negligible effect in forests of the <i>Piceetum fontinale</i> type. In forests of <i>Piceetum oxalidosum</i> type, nitrification due to felling occurs only in favorable cases. Fire always has a stimulating effect upon the nitrification processes in forest soils.</p> <p>W. P. Kricks</p>										<p>15</p>									
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1ST AND 2ND CROSES		PROCESSES AND PROPERTIES INDEX	3RD AND 4TH CROSES
<p>BC</p>		<p>Changes in soil microflora during the decalcification of carbonate solonchaks. N. H. BOURNINA (Trans. Dokuchaev Soil Inst., 1964, 9, 118-124).—The development of microflora on CaCO_3 gel decreases with the solodization of carbonate solonchaks, and ceases in solodized soils. Nitrification in upper horizon decreases with solodization but increases in the 20-30 cm. horizon.</p> <p>A. II.</p>	<p>B-III-1</p>
<p>ASB-11A METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>FROM SYNOPTIC</p>		<p>FROM INDEX</p>	<p>FROM INDEX</p>
<p>SYNOPTIC #1</p>		<p>SYNOPTIC #2</p>	<p>SYNOPTIC #3</p>

1ST AND 2ND PERIODS										3RD AND 4TH PERIODS									
PROCESSES AND PROPERTIES INDEX																			
BC										B-III-1									
<p><i>Arctobacter</i> in southern steppe soils of the U.S.S.R. N. N. SOKOLINA (Genetics and Geogr. of Soils, Dokuchayev Soil Inst. 1935, 159-169).—The occurrence of <i>Arctobacter</i> is dependent either on the salt or H₂O regime in soils or on both conditions. <i>Arctobacter</i> are absent from southern (chernozem, chestnut, steppe solonchaks, solonch, and other soils in the absorbing complex of which Ca⁺⁺ or H⁺ ions predominate over Na⁺ or Mg⁺⁺ and soil salts are low. <i>Arctobacter</i> occur in meadow steppe and solonchaks soils. Soil salts are high in these and Mg⁺⁺ and Na⁺ ions are present in relatively greater amounts. A. H.</p>																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
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SUSHKINA, N. N.

USSR/Chemistry - "Aluminum Silicates
Soil Science"

Nov 1947

"Decomposition of Aluminum Silicates by Means of Soil Bacteria," L. Ye. Novoroshova, N. P. Remezov, N. N. Sushkina, Moscow State University imeni M. V. Lomonosov, 34 --

"Dok Ak Nauk" Vol LVIII, No 4

It had been assumed for a long time that soil bacteria were very active in the process of decomposing aluminum silicates as well as potash, and dolomites, with the resultant formation of soil. Authors give very general description of experiments and results obtained in their course of studies confirming the fact that soil bacteria did actually break down aluminum silicates into soil. Submitted by Academician B. B. Polynov, 20 May 1947.

PA 38T5

SUSHKINA, N. N.

Sushkina, N. N.: "Nitrogen fixation and the biological properties of nitrogen bacteria extracted from salified soils of the Lower Volga", Report No. 2, Vestnik Mosk. un-ta, 1948, No. 10, p. 95-209, - Bibliog: 16 items.

SO: U-3042, 11 March 53, (Ietopis 'nykh Statey, No. 10, 1949).

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"The Ecological-Geographical Distribution of Azotobacter in the Soils of the USSR",
Soil Science, No. 8, pp 501-505, 1950,

SUSHEINA, N. N.

Bacteria, Nitrifying

Present day data on the ecology of Azotobacter chroococcum, review. Mikrobiologiya
21 no. 1:96-108 Ja-F '52

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified

SUSHKINA, N.N.; FORMOZOV, A.N., otvetstvennyy redaktor; SABLINA, T.B.,
redaktor; ASTAR'YEVA, G.A., tekhnicheskiiy redaktor.

[Journey to Tyuleny Island; fur seals and bird rookeries]
Puteshestvie na ostrov Tiulenii; morskoe kotiki i ptich'i
bazary. Moskva, Izd-vo Akademii nauk SSSR, 1954. 86 p.

(MIRA 7:11)

(Tyuleny Island--Seals (Animals)) (Seals (Animals)--
Tyuleny Island) (Tyuleny Island--Murres) (Murres--
Tyuleny Island)

Sushkina

N. N.

✓
AG Distribution and growth of azotobacter in podzol soils.
N. N. Sushkina and L. A. Sergunina (M. V. Lomonosov
State Univ., Moscow), *Mikrobiologiya* 24, 408-14(1955).—
Virgin podzol soils in the Moscow area do not generally con-
tain azotobacter, which appear after cultivation begins.
Cell counts and activity range from very low in early or
mild cultivation to very high in highly cultivated land such
as forcing plots, with rising rate of podzolization acting
against azotobacter development. Tabulated data show the
viability of azotobacter after inoculation of podzol-sol soils
in various stages of cultivation. Julian F. Smith

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SUSHKINA-N.N.

✓ Stability of Azotobacter to salts. N. N. Sushkina (M. V. Lomonosov State Univ., Moscow). *Mikrobiologiya* 25, 35-40 (1958).—*Azotobacter* occur in salt-enriched soils and in salty virgin soils; *A. halophilum* is an example. Both salt content and the cation are influential factors in the ecology of *Azotobacter*. Thus, the tolerances for Na, Mg and Ca concn. in the growth and N fixation activities are considerably higher for *A. halophilum* than for *Azotobacter* cultures from podzols which have not been salted. Antagonism between cations sometimes permits growth and N fixation at salt concns. above the observed individual tolerances.

Julian F. Smith

SUSHKINA, N.M., professor.

Marwhals. Priroda 45 no.5:112-113 My '56.

(MLRA 9:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Arctic regions--Dolphins)

SUSHKINA, N.N.; RYZHKOVA, P.S.

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AN SSSR 106 no.5:914-916 F '56. (MIRA 9:7)

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imeni M.V.Lomonosova. Predstavleno akademikom I.V.Tyurinym.
(Novaya Zemlya--Soil micro-organisms)

SUSHKINA, Nadezhda Nikolayevna; VARSANOF'YEVA, V.A., otvetstvennyy redaktor;
MYER, I.L., redaktor izdatel'stva; SHEVCHENKO, G.N., tekhnicheskiy
redaktor

[Two summers in the Arctic] Dva leta v Arktike. Moskva, Izd-vo
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E.N., tekhn.red.

[Among ancient monuments] U drevnikh pamiatnikov. Moskva,
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SUSHKINA, N., doktor biolog.nauk

Geysers. IUn.nat. no.5:21 My '60.
(Geysers)

(MIRA 13:6)

BUSHKINA, N.

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(Volcanoes)

(MIRA 13:0)

SUSHKINA, N.N., prof.

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(MIRA 14:4)

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Boiling lakes. IUn. nat. no. 12:27-28 D '60. (MIRA 14:3)
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SUSHKINA, Nadezhda Nikolayevna; PROKHODTSEVA, S.Ya., red.; CHERNYKH,
M.P., mladshiy red.; KOSHELEVA, S.M., tekhn. red.

[There are volcanos, whales and ice along the path] Na puti
vulkany, kity, l'dy. Moskva, Geografiz, 1962. 157 p.
(MIRA 15:8)

(Kurile Islands--Description, Geography)

(Spitsbergen--Description, Geography)

(Chukchi National Area--Description, Geography)

SUSHKINA, N.

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in crop yield. Pochvovedenie no. 4:103-108 Ap '62. (MIRA 15:4)
(Soil micro-organisms--Congresses)

SUSHKINA, N.N., prof.

From Tanganyika to Somali (to be continued). IUn. nat. no.12:
8-9 D '62. (MIRA 16:1)
(Tanganyika--Plants) (Tanganyika--Animals)

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Role of micro-organisms in the primary soil-forming process; a preliminary report. Vest. Mosk. un. Ser. 6: Biol., pochv. 20 no. 3:72-75 My-Je '65. (MIRA 18:7)

1. Kafedra biologii pochv Moskovskogo universiteta.

USSR/Astronomy-Stars, Giants

SUSHKINA, YE. I.

Mar/Apr 53

"Model of Red Giant with Isothermal Core," Ye. I. Sushkina, Ivanovo State Pedagogical Inst.

Astron Zhur, Vol 30, No 2, pp 180-183

Criticizes red-giant models in American literature and presents her conception of model with isothermal core, as quite different from models with convective core. Analyzes possible evolution of red giants and their connection with the main sequence.

Received 30 Nov 52.

22 Te

USSR/Astronomy - Red Giants - Evolution
- Stellar Evolution

SUSHKINA, Ye. I.

May/Jun 53

"Problem of the Evolution of Red Giants," Ye. I. Sushkina, Ivanovo State Pedagog Inst

Astron Zhur, Vol 30, No 3, pp 274-278

States that subject problem is to calculate a sequence of models of red giants with isothermal nucleus and to decide the possible courses of their evolution. Thanks V. S. Sorokin for proposing the subject and for his guidance and also A. G. Masevich for his ~~discussions~~ ^{Comments}. F

57 T6

SUSHKINA, Ye.I. (g. Ivanovo)

Use of a stereographic net in astronomy lessons. Fiz.v shkole
22 no.1:58-60 Ja-F '62. (MIRA 15:3)
(Astronomy—Study and teaching)

VASILENKO, T.; SUSHKO, A.

Against unnecessary links in the wholesale trade. Sov. torg.
33 no.6:39-43 Je '59. (MIRA 12:8)
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SUSHKO, A.A.

[Functional anatomy of the uterine veins] Funktsional'naya anatomia
vnutrigannykh ven matki. Kiev, Gos. med. izd-vo USSR, 1956. 114 p.
(UTERUS--BLOOD SUPPLY) (MLRA 10:4)

SUSHKO, A.A.; CHERNYSHENKO, L.V.

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M.S.Spirov) Kiyevskogo meditsinskogo instituta.
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SUSHKO, A.A., dots.

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prof. M.S.Spirov) Kiyevskogo meditsinskogo instituta.
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SPIROV, Mikhail Sergeyevich, prof., zasluzhennyy deyatel' nauki;
SUSHKO, A.A., red.; LOKHMATYY, Ye.G., tekhred.

[Classification of the lymph nodes of the human abdominal
cavity] Klassifikatsiya limfaticeskikh uzlov briushnoi
polosti cheloveka. Kiev, Gos.med.izd-vo USSR, 1959. 138 p.
(MIRA 13:4)

(LYMPHATICS)

(ABDOMEN)

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Lymph circulation in the wall of the vermiform appendix.
Vrach.delo no.3:263-267 Mr '59. (MIRA 12:6)

1. Kafedra normal'noy anatomii (zav. - zasl.deyatel' nauki,
prof.M.S.Spirov) Kiyevskogo meditsinskogo instituta.
(LYMPHATICS) (APPENDIX (ANATOMY))

SUSHKO, A.A., dotsent (Kiyev, ul.Krasnoarmeyskaya, d.90a, kv.53)

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68-74 J1-Ag '59. (MIRA 12:11)

1. Kafedra normal'noy anatomii (zav. - zasluzhennyy deyatel'
nauki prof.M.S.Spirov) Kiyevskogo meditsinskogo instituta.
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SUSHKO, A.A. (Kiyev, Krasnoarmeyskaya ul., d.90-A, kv.53)

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(LYMPHATIC SYSTEM, anatomy & histology)

SUSHKO, A.A., dotsent; CHERNYSHENKO, L.V., kand.med., nauk

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SUSHKO, A.A.

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